SHARP

LC-26GD7E LC-32GD7E LC-37GD7E

LCD COLOUR TELEVISION
LCD-FARBFERNSEHGERÄT
TÉLÉVISION COULEUR À ÉCRAN
À CRISTAUX LIQUIDES (LCD)
TELEVISORE A COLORI LCD
LCD-KLEURENTELEVISIE
TELEVISIÓN EN COLOR LCD

AQUOS



OPERATION MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
MANUALE DI ISTRUZIONI
GEBRUIKSAANWIJZING
MANUAL DE MANEJO









This apparautus complies with the requirements of Council Directives 89/336/EEC and 73/23/EEC as amended by Council Directive 93/68/EEC.

Dieses Gerät entspricht den Anforderungen der EG-Richtlinen 89/336/EWG und 73/23/EWG mit Änderung 93/68/EWG.

Ce matériel répond aux exigences contenues dans les directives 89/336/CEE et 73/23/CEE modifées par la directive 93/68/CEE.

Dit apparaat voldoet aan de eisen van de richlijnen 89/336/EEG en 73/23/EEG, gewijzigt door 93/68/EEG.

Dette udstyr overholder kravene i direktiv nr. 89/336/EEC og 73/23/EEC med tillæg nr. 93/68/EEC.

Quest' apparecchio è conforme ai requisiti delle direttive 89/336/EEC, come emendata dalla direttiva 93/68/EEC.

Αυτή η συσκευή συμμορψώνεται με τις απαιτήσεις των οδηγών του Συμβουλίου 89/336/ΕΟΚ και 73/23/ΕΟΚ όπως τροποποιηθκαν από την οδηγία του Συμβουλίου 93/68/ΕΟΚ.

Este equipamento obedece às exigências das directivas 89/336/CEE e 73/23/CEE, na sua versão corrigida pela directiva 93/68/CEE.

Este aparato satisface las exigencias de las Directivas 89/336/CEE y 73/23/CEE, modificadas por medio de la 93/68/CEE.

Denna utrustning uppfyller kraven enligt riktlinjerna 89/336/EEC och 73/23/EEC så som kompletteras av 93/68/EEC.

Dette produktet oppfyller betingelsene i direktivene 89/336/EEC og 73/23/EEC i endringen 93/68/EEC.

Tämä laite täyttää direktiivien 89/336/EEC ja 73/23/EEC vaatimukset, joita on muutettu direktiivillä 93/68/EEC.

Bu cihaz Konsey Direktifi 93/68/EEC tarafından düzeltilen 89/336/EEC ve 73/23/EEC Konsey Direktiflerinin gerekliliklerine uygundur.

Tento přístroj je v souladu s požadavky směrnic rady 89/336/EEC a 73/23/EEC, tak jak byly upraveny směrnicí rady 93/68/EEC.

See seade on vastavuses Nõukogu Direktiivis nr 89/336/EEC ja 73/23/EEC esitatud nõuetega, vastavalt Nõukogu Direktiivis nr 93/68/EEC esitatud parandustele.

Ez a készülék megfelel a Tanács által kiadott, 89/336/EGK és 73/23/EGK Irányelveknek és az utóbbit módosító 93/68/EGK Irányelvnek.

Ši ierice atbilst tehniskam prasibam pec 89/336/EEC un 73/23/EEC direktivam papildinats ar direktivu 93/68/EEC.

Šis prietaisas atitinka ES Tarybos direktyvu 89/336/EEC ir 73/23/EEC paktikslintos direktyvos 93/68/EEC reikalavimus.

To urządzenie spelnia wymagania dyrektyw 89/336/EEC i 73/23/EEC wraz z poprawkami dyrektywy 93/68/EEC.

Tento prístroj je v súlade s požiadavkami smerníc rady 89/336/EEC a 73/23/EEC tak ako boli upravené smernicou rady 93/68/EEC.

Ta aparat je v skladu z zahtevami Direktiv Sveta 89/336/EEC in 73/23/EEC kot je navedeno v dopolnilu k Direktivi Sveta 93/68/EEC.

SPECIAL NOTE FOR USERS IN THE U.K.

The mains lead of this product is fitted with a non-rewireable (moulded) plug incorporating a 13A fuse. Should the fuse need to be replaced, a BSI or ASTA approved BS 1362 fuse marked \heartsuit or \diamondsuit and of the same rating as above, which is also indicated on the pin face of the plug, must be used. Always refit the fuse cover after replacing the fuse. Never use the plug without the fuse cover fitted. In the unlikely event of the socket outlet in your home not being compatible with the plug supplied, cut off the mains plug and fit an appropriate type.

DANGER:

The fuse from the cut-off plug should be removed and the cut-off plug destroyed immediately and disposed of in a safe manner. Under no circumstances should the cut-off plug be inserted elsewhere into a 13A socket outlet, as a serious electric shock may occur. To fit an appropriate plug to the mains lead, follow the instructions below:

IMPORTANT:

The wires in the mains lead are coloured in accordance with the following code:

Blue: Neutral Brown: Live

As the colours of the wires in the mains lead of this product may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- The wire which is coloured blue must be connected to the plug terminal which is marked N or coloured black.
- The wire which is coloured brown must be connected to the plug terminal which is marked L or coloured red.

Ensure that neither the brown nor the blue wire is connected to the earth terminal in your three-pin plug.

Before replacing the plug cover make sure that:

- If the new fitted plug contains a fuse, its value is the same as that removed from the cut-off plug.
- The cord grip is clamped over the sheath of the mains lead, and not simply over the lead wires.

IF YOU HAVE ANY DOUBT, CONSULT A QUALIFIED ELECTRICIAN.

OPERATION MANUAL

- The illustrations and on-screen displays in this operation manual are for explanation purpose and may vary slightly from the actual operations.
- The examples used throughout this manual are based on the LC-32GD7E model.

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WARNING:

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Dear SHARP customer

Thank you for your purchase of the SHARP LCD colour TV product. To ensure safety and many years of troublefree operation of your product, please read the Important Safety Precautions carefully before using this product.

Important Safety Precautions

- Cleaning—Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.
- Water and moisture—Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.
- Do not place vases or any other water-filled containers on this product. The water may spill onto the product causing fire or electric shock.
- Stand—Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.
- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.
- Ventilation—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.
- The LCD panel used in this product is made of glass. Therefore, it can break when the product is dropped or impact applied. If the LCD panel is broken, be careful not to be injured by broken glass.

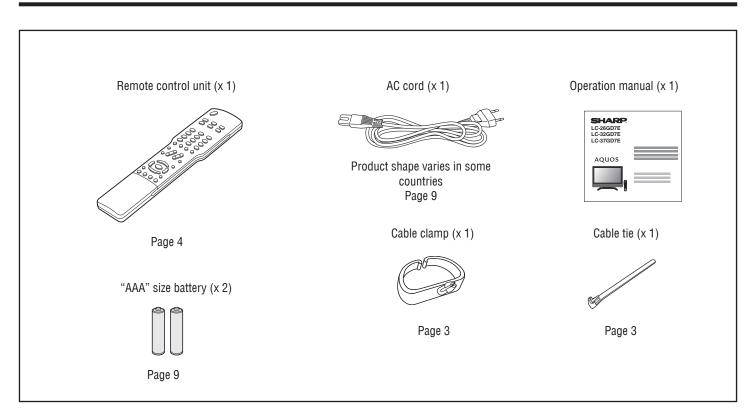
- Heat sources—Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).
- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.
- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.
- Do not display a still picture for a long time, as this could cause an afterimage to remain.
- There is power consumtion always if main plug is connected.

The LCD panel is a very high technology product with 3,147,264 thin film transistors, giving you fine picture details. Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green or red. This is within product specifications and does not constitute a fault.

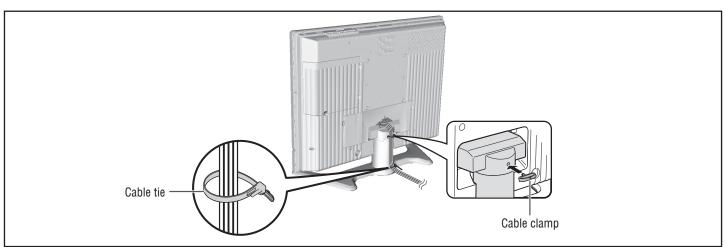
Precautions when transporting the TV

When transporting the TV, never carry it by holding onto the speaker. Be sure to always carry the TV by two people holding it with two hands—one hand on each side of the display.

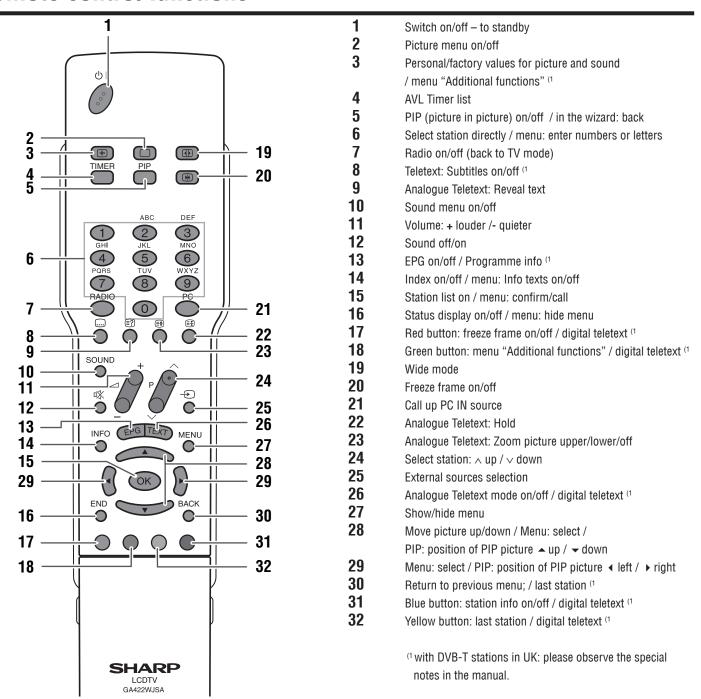
Supplied accessories



Bundling the cables



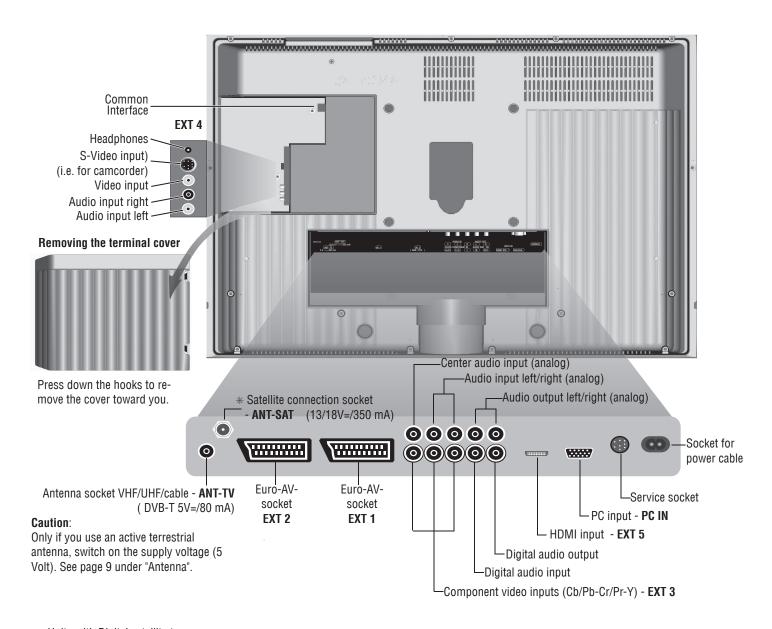
Remote control functions



Control unit



Connections to rear panel



^{*} Units with Digital satellite tuner

Welcome

Thank you

for choosing a Sharp product. We are happy to have you as a customer.

We have designed the TV set in such a way that it is easy to operate with menus. Information about settings in menus is shown automatically for fast comprehension of the situation.

You will find the answers to many of your technical queries in the index of your TV. If it is a matter of operating the TV, you can access a function directly from the index. This saves you from having to read through detailed operating instructions and is the reason, why this operating manual only explains the most important operating steps.

TV equipment

The maximum equipment is described in this operating instructions. Functions marked by * are not available in all TV sets.

You can view your TV equipment in the "Integrated features" index (press the **INFO** button in TV mode, if no menu is displayed; is displayed separately in the index before the letter A).

Depending on the capabilities, your set will have an analog tuner for receiving terrestrial stations as well as a DVB-T set for digital/terrestrial stations or will also have DVB-S for digital stations via satellite.

This enables reception of a large number of free digital stations. Since your TV set is fitted with a slot for a Common Interface Module (CI) you can also receive coded stations.

For this you only need a Common Interface Module and a Smartcard from the station provider. Both are available from dealers.

Your TV set also allows reception of digitally broadcast radio stations if this feature is offered by the station providers.

Digital TV and radio stations usually offer not only a better sound and picture quality than conventional analogue stations but also provide numerous additional functions which are explained in this manual.

Range of stations

How many and which stations you can receive essentially depends on your location and your antenna system, e.g. roof antenna / indoor antenna or satellite antenna.

Ask your dealer to find out which is the best antenna for your location.

The digital TV offers you the following advantages:

- All digital stations received terrestrially and via satellite are shown in a station table.
- All stations can be called with one common remote control command.
- Support of EPG (the electronic program guide)
- The digital stations can be recorded with a VCR or DVD recorder.
- It is also possible to receive coded stations (Pay-TV) as an option if the corresponding Common Interface Module and the Smartcard from the station provider are available.

Installation possibilities

as a desktop unit

Use the pre-assembled stand included in delivery.

as a wall-mounted unit

Use the optional wall-mount bracket:

AN-26AG1 for LC-26GD7E

AN-37AG2 for LC-32GD7E, LC-37GD7E

Caution: When you install the wall-mount bracket <u>only</u> use the supplied original screws (max. allowed screw dimensions for LC-26GD7E: M4x12; LC-32GD7E or LC-37GD7E: M6x12).

Information on Disposal for Users (private households)

In the European Union



Attention: Your product is marked with this symbol. It means that used electrical and electronic products should not be mixed with general household waste. There is a separate collection system for these products.

Attention: If you want to dispose of this equipment, please do not use the ordinary dust bin!

Used electrical and electronic equipment must be treated separately and in accordance with legislation that requires proper treatment, recovery and recycling of used electrical and electronic equipment.

Following the implementation by member states, private households within the EU states may return their used electrical and electronic equipment to designated collection facilities free of charge*. In some counties* your local retailer may also take back your old product free of charge if you purchase a similar new one.

*) Please contact your local authority for further details.

If your used electrical or electronic equipment has batteries or accumulators, please dispose of these separately beforehand according to local requirements.

By disposing of this product correctly, you will help ensure that the waste undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health which could otherwise arise due to inappropriate waste handling.

In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

For Switzerland: Used electrical or electronic equipment can be returned free of charge to the dealer, even if you don't purchase a new product. Further collection facilities are listed on the homepage of www.swico.ch or www.sens.ch

Information on Disposal for Business Users

In the European Union

If the product is used for business purposes and you want to discard it:

Please contact your SHARP dealer who will inform you about the take-back of the product. You might be charged for the costs arising from take-back and recycling. Small products (and small amounts) might be taken back by your local collection facilities.

For Spain: Please contact the established collection system or your local authority for take-back of your used products.

In other Countries outside the EU

If you wish to discard this product, please contact your local authorities and ask for the correct method of disposal.

Remote control

To insert or change the batteries press on the arrow. Slide the battery compartment cover downwards and remove it. Insert Alkali Mangan LR 03 (AAA) batteries and ensure that the + and – ends are connected correctly.

Then push the cover back on from the bottom until it snaps in.

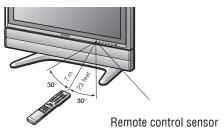
CAUTION

Improper use of batteries can result in chemical leakage or explosion. Be sure to follow the instructions below.

- Do not mix batteries of different types. Different types of batteries have different characteristics.
- Do not mix old and new batteries. Mixing old and new batteries can shorten the life of new batteries or cause chemical leakage in old batteries.
- Remove batteries as soon as they have worn out. Chemicals that leak from batteries can cause a rash. If you find any chemical leakage, wipe thoroughly with a cloth.
- The batteries supplied with this product may have a shorter life expectancy due to storage conditions.
- If you will not be using the remote control unit for an extended period
 of time, remove the batteries from it.

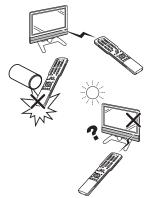
Using the remote control unit

Use the remote control unit by pointing it towards the remote control sensor. Objects between the remote control unit and sensor may prevent proper operation.



Cautions regarding the remote control unit

- Do not expose the remote control unit to shock.
- In addition, do not expose the remote control unit to liquids, and do not place in an area with high humidity.
- Do not install or place the remote control unit under direct sunlight. The heat may cause deformation of the unit.
- The remote control unit may not work properly if the remote control sensor of the TV is under direct sunlight or strong lighting. In such case, change the angle of the lighting or TV, or operate the remote control unit closer to the remote control sensor.



Connection

Power mains

Connect the TV set to a 220-240V/50–60 Hertz power outlet. Plug the small plug of the power cable into the mains socket on the back of the TV, the large plug into a wall outlet.

Antenna

Connect the antenna cable from your antenna/cable socket or the (room/roof) antenna for DVB-T with the antenna socket "ANT-TV" on the back of your TV set to receive digitally/terrestrially broadcast stations. An indoor antenna can also be used under good reception conditions. Passive and active room antennas are offered commercially. In an active antenna its power is supplied via the antenna connection "ANT-TV". The "Supply voltage" (5 Volt) must be correspondingly set in the "TV Menu – Connections— Antenna DVB — Antenna DVB-T". It is advisable to use an antenna without directional characteristic. If the location is outside the normal transmission range, a directional antenna (Yagi) can also be used to improve the reception quality.

You can obtain more detailed information about receivable digital stations in your area from your dealer.

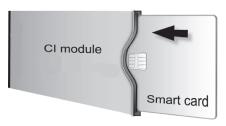
You can also receive an analogue cable station or an analogue terrestrial station and a satellite station * at the same time and watch with the picture in picture (PIP) function.

Use the enclosed cable tie for laying the cables.

Inserting the Common-Interface module

In order to be able to receive encrypted digital stations, the Common Interface Module (CI module) and the Smartcard have to be inserted in the appropriate slot of your TV. You can find the slot on the rear of your TV set, see fig. on page 6.

- 1. Make sure that the TV set is switched off (mains power plug pulled out from the wall outlet).
- 2. Push the Smartcard into the CI module as far as possible. The side with the golden contact chip needs to face the side of the module printed with the provider's logo. Printed arrows show you how to insert the card. Please also observe the installation instructions enclosed with the Smartcard.



3. Push the CI module carefully, with the contact side facing forwards, into the slot. The logo on the Common Interface Module must be visible. Make sure the module is not inserted askew. Do not use force. The eject button is pressed out when the module snaps in.



4. Reconnect the mains power plug to the power outlet.

For further information regarding the CI module please refer to page 28.

Switching on



Switch on the set with the **ON/OFF** button on the top of the screen.

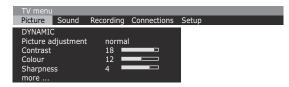
The mode indicator on the TV set now lights green. Further information can be found on page 15.

Basics about the menu operation

We will show you how to navigate through the menus using the "TV menu" as an example. You'll be able to see which keys can be used in the box on the screen at the bottom.

MENU

Open TV menu (in TV mode).





Apart from the menu (top) you can see further information about the set menu item at the bottom (hide with **INFO**).



Select the function in the TV menu, e.g. "Sound" (for sound setup). With ▶ you move the menu items displayed on the right to the yellow box, with ◀ the menu items displayed on the left.



Sound Recording Connections Setup Picture

Select the sound function below with

.





(

In the sound settings select e.g. "Treble" with ◀ ▶ (for increasing or reducing the treble tones).



If you want to make other sound settings, move down with \ldot





and select "more" with **OK**





... mark the selection for "Maximum volume" with -..





Set "Maximum volume" with ◆ ▶ .



Press repeatedly the **BACK** button to return to the last menus.



Press the **END** button to hide the menu.

Other menus can be opened in TV mode as follows apart from the TV menu shown here:

Call the Sound menu directly.



Call the Picture menu directly.



Call personal/factory values.

For DVB-T stations in UK: menu "Additional functions"



Call the picture format selection directly.



Green button: Quick calls for analogue teletext subtitles and headphones volume.

For DVB-T stations in UK: digtial teletext (page 26).



Blue button: Here you get programme information and a preview via analogue teletext and/or EPG. For DVB-T stations in UK: digital teletext (page 26).

Automatic station programming

The TV's automatic station programming is started after switching on for the first time.

Follow the menus and make the necessary settings one after another.



By pressing the \checkmark \land \lor buttons you select the setting



... and confirm with **OK**. You then go to the next menu.

- First you have to select the menu language e.g. "English" with the remote control.
- Pressing the **OK** button takes you to the menu "Connect antenna(s) for". If you wish to receive digital stations via satellite, select "Satellite DVB-S" * and confirm with the **yellow** button.

If you wish to receive digital terrestrial stations (DVB-T), select "Antenna DVB-T".

Also select "Antenna/cable (analogue)", which allows you to search for and store conventional analogue stations.

- 3. Go to the "Location of TV set" menu by pressing the **OK** key. Select which country you are operating your TV in.
- If you have selected DVB-T, pressing the **OK** button will take you to the menu "Antenna DVB-T".
- 5. If your TV-set is equipped with DVB-S and you have choosen it at step 2., you can make the selection corresponding to your satellite antenna system in the menu "Select satellite installation". Ask your antenna technician or dealer about the type of satellite antenna system and the antenna settings if necessary. Otherwise continue at step 11.
- 6. Select the satellite at which the antenna is aimed, e.g. ASTRA 1.

If you receive only one satellite...

- 7.In the following menu enter whether the station search is to take place in the high and low band ("yes") or only in the low band ("no").
 - Note: A station search is necessary in both bands with most satellites.
- The standard frequencies 9750 MHz and 10600 MHz are entered for the low-band and high-band.

If your satellite antenna is fitted with an LNC (LNB) with a different oscillator frequency, enter the corresponding frequency for high and low band respectively.

Note: The correct display for the reception frequencies in the menu "Set station manually" depends on this setting!

- You should see a picture and hear the sound with the settings previously carried out (only for ASTRA 1 and HOTBIRD). Now press OK.
- 10. You can select the default pre-programming in the menu "Use pre-programming" for fast programming of the satellite stations.
 Please select "no" to ensure that all stations currently receivable are searched for and saved.

Symbol rates: The standard symbol rates 22000 and 27500 are entered.

If you wish to receive stations with other symbol rates, please enter the corresponding values here using the number buttons of the remote control.

- 11. With **OK** you get an overview of which settings are to be used for automatic programming.
- 12. Press the **OK** key again, the station search starts. The TV searches for, sorts and stores all the receivable TV stations according to their settings and the connected antenna.
- 13. When the TV stations are stored, you get a message. Radio stations are then searched for with **OK** .
- 14. After storing the radio stations you get the "AV setup" menu by pressing the **OK** key.

Select "yes" if you want to connect/log in a VCR, DVD player etc. Follow the "Connection wizard" and connect the equipment to the TV set according to the connection diagram. The menu is hidden if you select "no".

Note: You can repeat the initial start-up at any time, e.g. after moving. The "Repeat initial installation" function deletes any stations already stored!

- 1. Press the INFO key.
- 2. Then select the item "Repeat initial installation" and press OK.

Station sorting

Note: not with DVB-T stations in UK (refer to note on "LCN" on page 13).

You can later change the station sorting performed automatically whenever and however you wish, see "TV menu – Setup – Channels – Change stations".

DVB-T antenna position

Note: not with DVB-T stations in UK.

If you receive one or more digital terrestrial stations (DVB-T) with picture and sound interference using your room antenna, you should change the location of the antenna.

For optimum alignment or determination of the suitable installation location of the antenna your TV set has an indicator for the signal quality ("C/N") and signal strength Level.

Ask your dealer on which channels and frequency bands (VHF or UHF) digital TV stations are broadcast in your area.

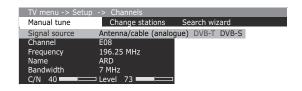
Several digital stations are transmitted on one channel.

Choosing a TV channel

- 1. Call the "TV menu" with the **MENU** button.
- 2. Select the "Setup" line and confirm with **OK**.
- 3. Select the "Channels" line and confirm with OK.



4. Select "Manual tune" and confirm with **OK**.



5. For digital stations select "Signal source – DVB-T".

Enter the appropriate channel number with the numeric buttons. The corresponding bandwidth 7 or 8 MHz is set depending on the channel and country.

Notes:

- You should only adapt the bandwidth if the channel spacing of the stations in your area deviate from the standard.
- If you receive a digital station, the signal quality ("C/N") and the signal strength level is displayed by a black bar/numeric value.
- The antenna alignment or position is at an optimum when as high a value as possible (large bar) is displayed for the signal quality and signal strength.
- The antenna should be aligned to give a maximum numeric value/bar.
- If no signal is found in the set channel, you can start the frequency search within the selected band (VHF or UHF) by pressing the blue button.
- Check other channels on which digital stations are broadcast terrestrially in your area one after another.

Align the antenna using the weakest station to as maximum as possible a bar/numeric value.

Note: After the antenna has been positioned and aligned, we recommend the "Automatic station programming" function to search for all stations (see page 11).

New station search

This function is of particular advantage if you are only searching for new stations

- Switch on your TV and if no menu is displayed, call the "TV menu" by pressing the MENU button on the remote control
- Select the "Setup" item and confirm with **OK**.Caution:

Only if you use an active terrestrial antenna, switch on the supply voltage (5 Volt). See page 9 under "Antenna".

- 3. Select "Channels" and confirm with **OK**.
- 4. Select "Search wizard" and confirm with **OK**. You will get a table for the automatic station search.
- 5. If required select "Change search settings" and confirm with **OK**. Follow the menus. Otherwise continue with step 10.
- 6. Select your "Location of TV set" and then indicate whether you are searching via "Antenna/cable (analogue)", "DVB-T" or in the "Satellite 1: (DVB-S)" by marking the appropriate selection with the **yellow** button.

In DVB-T you can select a channel search (fast station search) or a frequency search.



Indicate whether you wish to have "all" stations or "new ones only" searched for.

Notes:

- The frequency search option is to be preferred only in exceptional cases such as in the event of deviations from the standardized channels.
- If you have purchased a CI module, please insert it as described on page 10.
- Which of the stations of the provider you can watch in the end depends on which station package you have bought.
- To extend an existing station list we recommend you to activate the option search and store "new ones only".
- For DVB-T stations in UK the stations are tied to "Logical Channel Numbers" - "LCN" and sorted from 1- 799. New digital stations without "LCN" are stored from 800 onwards. Analogue stations are stored behind the digital ones from 1001 onwards.
- 8. Confirm your selection with **OK**.
- Select the "TV/Color standard" for "Signal source": "Antenna/cable (analogue)" and confirm with **OK**.
- Specify from which station place onwards the stations are to be stored and confirm with **OK**.
- 11. Select "Start search" and confirm with OK.

The station search may take some time.

Do not make any entries or switch off the set during this time.

When the search has ended you will be shown the found and stored stations sorted in numerical order.

If you also want to search for and store analogue stations, repeat the steps ${\bf 5}$ to ${\bf 10}$.

After the station search has been completed, close the table by pressing the ${\bf END}$ button.

Manual station setting

Note: not with DVB-T stations in UK (refer to note on "LCN" on page 13).

You can also search for and store stations manually. However, detailed knowledge is necessary for manual programming.

- Activate the appropriate menu depending on whether you want to set TV or radio stations – in the respective mode (TV or Radio) with the MENU button.
- 2. Select "Setup Channels" in the "TV menu" or "Radio menu".
- 3. Select the entry "Manual tune" and confirm with **OK**.
- 4. Now enter the necessary setting parameters for each menu item. Press the INFO button, if you need explanations of the individual menu items.

Notes:

Several radio and TV stations can be broadcast on every channel.

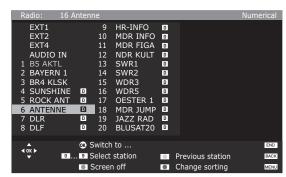
Digital radio stations search

Your receiver can play radio stations via DVB in high quality.

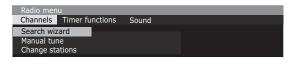
Note: Digital radio stations are not broadcasted in the DVB-T standard in all regions at present.

Radio stations are stored in a separate station table. You can search for and store digital radio stations in the "Radio menu".

1. Switch to radio mode with the **RADIO** button.



2. Use **MENU** to call up the "Radio menu" and select "Channels".

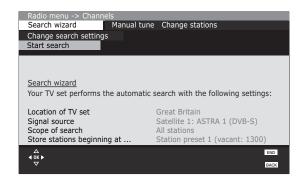


- Confirm with OK.
- 4. With the "Search wizard" you can have the radio stations searched for automatically or manually.

In the "Change search settings" menu you can select the signal source and search for and store "all" digital radio stations or "new ones only". You can set the "Search method" to "Channel search" or "Frequency search" in DVB-T

In DVB-S you can decide whether you want "Use pre-programming" and set the "Symbol rate" if necessary.

- Finally enter from which station place the found stations are to be stored.
- 6. Press the OK button.



You now get a summary of the settings you have made.

- 7. Select the line "Start search".
- 8. Start the search with OK.

If radio stations have been found and stored you get a station table at the end.

Daily operation

Switch on/off

Your TV is equipped with an eco-standby power supply unit. On standby the power consumption drops to low power (see page 36). Weak electric power is still consumed even if the the unit is switched off by the **ON/OFF** switch.

Attention: If you want to switch the TV set completely off you have to remove the plug of the mains power cable from the mains power socket.

However bear in mind that in both cases EPG data will be lost and programmed timer recordings will not be performed by the TV.

Switching off



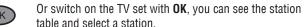
If the TV set is switched on (Mode indicator lights green), you can switch it to standby using the red **ON/OFF** button of the remote control.

The mode indicator on the TV set lights red. If the mode indicator lights orange, a timed recording is made, EPG data is entered or radio operation without screen display is active.

Switching on the TV set



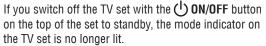
From standby it is best to switch back on with the red **ON/OFF** button or with the numeric buttons (0-9) of the remote control.



Switching the Radio function on *



Radio mode is only possible if the TV set is equipped for DVB-T/S reception or an external radio receiver is connected to the AV connections EXT 1, EXT2.



The unit then cannot be switched on by the remote control.

Changing stations

with the P_{\wedge} / P_{\vee} buttons on the remote control



Station up/down

with the numeric buttons of the remote control

The TV set has a dynamic memory. If up to 9 stations are stored, you only need to enter one digit, up to 99 two digits, up to 999 three digits and above 999 four digits (please look in the station table to see how many stations have been stored).

1 digit stations



Press buttons 0 - 9 for one second, and the station changes instantly.

Or press button 0-9 briefly, the station then changes after 2 seconds (the station changes immediately when only 9 stations are stored).

2 digit stations



After briefly pressing the first numeric button keep the second numeric button pressed for one second, the station then changes immediately.

Or press both numeric buttons briefly, the station then changes after 2 seconds (the station changes immediately when only 99 stations are stored).

3 digit stations



After briefly pressing the first and second numeric button keep the third numeric button pressed for one second, the station then changes immediately.

Or press the three numeric buttons briefly, the station then changes after 2 seconds (the station changes immediately when only 999 stations are stored).

4 digit stations

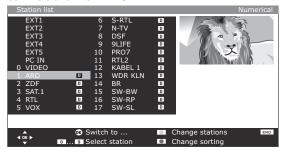


Press the four numeric buttons briefly, the station then changes immediately..

via the station list



Call the station list with OK





Select station (if broadcast, the selected station is displayed in the PIP picture)



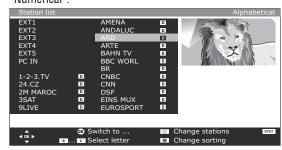
select with numeric buttons



call selected station with **OK**



blue button: sort "Alphabetical", according to "Bouquets, "Numerical".



•--•--

In case of alphabetical display: Enter letter (as on a mobile phone keypad), select with \checkmark and call with **0K**.

For bouquet display (only for devices with DVB; not with DVB-T stations in UK): Enter bouquet number, select with \checkmark and call with **0K**.

Digital stations are marked by Coded stations are marked by

Child-protected stations are marked by

Calling up external sources

for playing AV equipment push the **AV** button (see also from page 30 onwards).



Select AV socket with \checkmark (or VIDEO if the video recorder has been connected via the antenna socket) and press **OK**.

Note: For DVB-T stations in UK in normal TV mode (digital teletext is disabled) you can call the last station with the **BACK** button. So you can switch back and forth quickly between two channels .

Adjusting the sound

Volume and other frequently used sound settings



Setting the volume



you can have other sound settings displayed with -







and set with ◆ ▶

Sound off/on



Sound off

Sound off

Sound on: Press button again or adjust volume.

Sound on

Other sound settings:



Call the Sound menu



Daily operation



select the sound function to be set with A



9



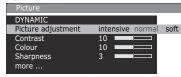
and select/set with ◀ ▶.

Sound setup: "Treble" and "Bass". Under "more... " you will find the sound selection for "Loudspeaker sound", "Auto volume", "Volume and sound of the headphones", "AV audio signal", "Maximum volume" and "Balance". Different menu items are displayed depending on the selected station and the connected audio device.

Setting the picture

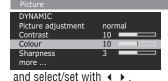


Open the Picture menu.





select the picture function to be set with ightharpoonup



Picture settings: Picture adjustment, "Contrast", "Colour", "Sharpness". Under "more..." you will find "Brightness", "Wide mode", "Move picture up/down", "Auto format" and "Movie mode (DMM)".

Note: In 16:9 or 4:3 mode, "Move picture/up/down" does not work.

Operation on the TV set

Switching station on the TV set



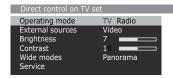
For station down press \vee . For station up press \wedge .

Changing volume, brightness, contrast, or wide mode

MENU



Press the **MENU** function button briefly.



∨ P ∧

Select the function to be set with the P_{\land} / P_{\lor} button e.g. contrast.





Set the required level using the volume —— or +.

TV mode

In initial installation and daily operation, the TV set is in TV mode. This is also the case when none of the other modes of operation such as EPG, Teletext. PIP or Radio has been selected.

Each of these modes of operation has a menu, which you can call with the **MENU** button and with some colour button assignments.

Functioning of the colour buttons in TV mode

Note: The coloured buttons do not work as described below with DVB-T stations in UK, but they operate as described on page 26 under "Digital Teletext".

red: the TV picture freezes. Pressing this button again starts the picture moving again.

green: select "Additional functions" such as analogue "Teletext subtitles", "Headphones volume" and "Move picture up/down" (In 16:9 or 4:3 mode, "Move picture/up/down" does not work).

For DVB-T stations in UK: instead of "Teletext subtitles" appears the selection "AV mode".



- yellow: Call last viewed channel. You can switch back and forth guickly between two channels with this button.
- **blue**: call station info.



AV mode



For various modes you can select optimized picture and sound settings. The set values are stored permanently for the individual mode.

For DVB-T stations in UK: menu "Additional functions"



Status display

When you change channel or press **END** a status display appears for a few seconds.



In the top line you can see the name of the programme. Further display options which can be selected in the "TV menu – Setup – Miscellaneous – On-screen displays" are shown below it ("Time", "On-screen display time", "Sleep timer" etc.).

Additional selection options for the status display can be provided by the station provider for the DVB programme. In this case, the corresponding colour button or the **TEXT** button will be displayed:

- red: Channel selection for multi-channel providers.
- green: select Language/Sound.
- yellow: select Time.
- **blue**: select Child protection.
- TEXT: select DVB subtitles.

If you press the colour button or the **TEXT** button while the status display is shown, the appropriate selection menu is displayed.

The subtitles of the status display refer exclusively to the "DVB subtitles" and are not offered by all station providers.

Which options you see depends on the respective programme provider (Many programme providers broadcast subtitles by analogue teletext). The status bar is displayed automatically when you change channels or when a new programme with different options to the previous programme begins.

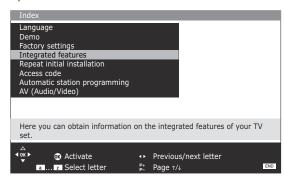
Notes:

- In the sound identification, "Mono!" means that you have switched manually from stereo to mono for example.
- Selection menus are only available as long as the status bar is displayed. However, you can call it again at any time by pressing the END button on your remote control.

Open index



Open index with INFO.



The index answers many questions, concerning your TV set. If you have a question about the operation, you have direct access to it from the index. This set is delivered in different variants. You can find out what equipment your TV has under the menu item "Integrated features". You can reset any settings made in AV mode if you select "Factory settings" and then push the button **OK**.

Demo mode

Open index with **INFO**. Select "Demo". The Demo function allows you to see the most important menus implemented in this TV set.

AVL timer list



If timer recordings have been programmed you will see when and which station was recorded here.





Press the **red** button to go to the menu for the "Recording wizard" (see page 31).

Wide modes



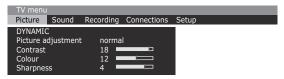
If you want to set a different format, press this button until the desired format is selected or select the format



TV menu

MENU

Call up the TV menu.



You will find a description of the picture and sound settings on page 16/17. The TV menu offers settings for recording and connections and for TV settings.

Under "Recording" you will find the functions (when a recorder is logged in):

Recording wizard

Via EPG
 Via teletext (VPS)

Manual

Note: You will find further information about timer recording on page 31. $\underline{\text{AVL timer list}}$

Here you will find a list of channels programmed for recording. You can change the recording data or delete programmed recordings completely and programme new recordings.

Pre-/Post record time

For recordings without VPS/PDC you set a pre and post time here so that the programme is fully recorded in case of slight differences in the time.

Under "Connections" you will find the following functions:

AV setup

The connection wizard helps you connect and log in additional equipment such as video recorders, DVD players/recorders, camcorders/digital cameras, pay TV decoders, equipment with component signals and digital HDMI signals.

Antenna DVB

Antenna DVB-T
 Satellite DVB-S *

You will find further details on page 9/10.

* Units with Digital satellite tuner

AV-Link

Transmission of the programme data from the TV set to the video/DVD recorder if a recorder with AV Link is logged in.

Miscellaneous (connections)

- Set AV standard for the connections manually (if it is not recognised automatically).
- "Assign audio digital" signals to one of the AV sockets.
- "Allow switching voltage" to display the signals of the connected device immediately on the screen via Euro AV during playback
- "RGB insertion at EXT1" to play back RGB signals at all station slots.

Under "Setup" you will find the following functions:

Channels

Here you can search for and store new stations automatically or manually. In "Change stations" you can re-sort and delete stations and change station names (not with DVB-T stations in UK).

• "Search wizard" • "Manual tune" • "Change stations".

Parental lock

You can define a four digit access code and lock the TV "Lock immediately" or "Lock daily" for a certain time.

Timer functions

You can set your TV set to "Switch off daily" and "Wake up daily" at fixed times.

Language

If "your" menu language is not set, you have to select the "Language" menu in a language that you do understand. Therefore here is a simple way to set the right menu language:

- 1. Press the **INFO** button ("Index"), select the <u>first</u> listing.
- 2. Call the "Language" selection by pressing **OK** button.
- Now mark the desired language and confirm it by pressing the OK button.
- 4. Hide the menu again with the **END** button.

Miscellaneous (Setup)

On screen displays

Define the content of the status display here and switch the automatic info texts off or on:

- "On screen display time" "Programme title" "Sound mode"
- "Time" "Alarm timer" "Sleep timer"

Time and date

When you receive teletext, the correct date and time setting is picked up automatically by the set. The time serves as information for timer recordings, timer functions and EPG.

When you receive teletext, the correct "Date" and "Time" setting is picked up by the set automatically.

If you do not receive teletext, you should set the "Date" and "Time" manually and not switch the TV off with the **ON/OFF** button as the settings will then be lost. You can also set the "Deviation from Universal Time" and "Beginning of daylight-saving time" and "End of daylight-saving time".

DVB software

Update of DVB software if offered by the provider (over air download). Please refer to page 28 and 29.

DVB subtitles

- "Subtitles off""for impaired hearing"
- "for translation".

DVB character set

• "Western European" • "Polish" • "Standard".

Picture in picture (PIP)

Picture in picture displays are possible if the set has a digital satellite tuner in addition to the TV cable tuner or when playing a connected DVD player, VCR etc.

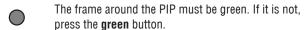
Note: The coloured buttons do not work as described below with DVB-T stations in UK, but they operate as described on page 26 under "Digital Teletext". The PIP functionality is thereby limited to the selection of the station of the PIP picture.

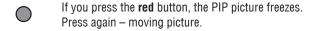
The PIP displays a PIP image in the presently displayed TV image. The frame around the PIP is initially green.



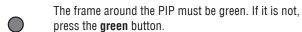
Show/hide PIP picture.

PIP picture as freeze frame





Select the station of the PIP picture





Then select the station as normal.



Select the station of the TV picture



The frame around the PIP must be white. If it is not, press the **green** button. Then select the station as normal.





Interchanging PIP picture/TV picture

The frame around the PIP must be green. If it is not, press the **green** button.

Interchange the pictures with the **yellow** button.

Functions in the PIP menu

In the PIP menu you set the PIP type (small picture or split screen) and the position of the small picture.

Call the PIP menu (PIP must be active).



PIP type: Split Screen

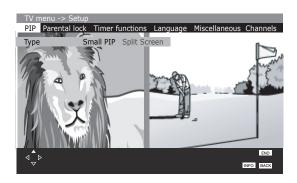
You can have the PIP picture displayed on the right hand side of the screen. Both pictures share the screen in two halves. You will see a coloured vertical bar between the pictures.

Switch to split screen:





Select "Split Screen".



PIP type: Small PIP

You can have the PIP picture displayed as a small picture. You will see a coloured frame around the PIP picture.

Switch to small picture:



Select "Small PIP".



Position of the PIP picture



Select "Small PIP" . Select the desired PIP position.



The frame around the PIP picture must be green and no other displays should be visible on the screen.

EPG – **Programme** guide

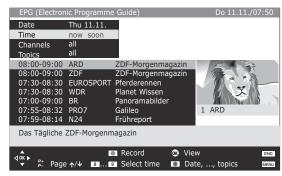
EPG is the electronic programme guide for TV programmes. With this system, you can easily find the stations that interest you (sorted according to day, time, programme and topic). You can memorise stations and station recordings.

Depending on whether you are receiving analogue stations by cable/antenna or digital stations, you will have different programme guides. A wizard is activated the first time you use EPG (not with DVB) which guides you through the necessary settings. Then run the data acquisition (see next page).

Using the EPG



Switch EPG on/off.



All **currently** running programmes are listed initially in the programme list. With the - buttons, select the programme you want to watch and switch over with the **OK** button. In the small picture you will see the selected programme in the currently running programmes.

Brief information is shown below the programme list for some programmes. If further information is available, you can call the detailed information with the **TEXT** button.

With $P \vee$ you can scroll to the next page of the programme guide, with $P \wedge$ to the previous page. In the selection lines for date and time above it, you will see the time change when scrolling, when scrolling further the date also changes. If the "Time" line is preselected or marked, you can enter the time from which the stations are to be displayed with the numeric buttons of the remote control. Always enter four digits, e.g. 0900 for 9 am. If programmes which have not yet started are displayed, you can note these with the **OK** button . The TV set then switches automatically to this programme at a given time.

When receiving digital-terrestrial and digital satellite stations*, it may be the case that two identical EPG data are displayed in the "EPG (DVB)" menu for one station. If you call up the EPG menu in EPG mode using

the **MENU** button, then select "Station selection", you can select the double-listed station and deactivate it with **OK** (**Z** is deselected). You have direct access to the selection lines to pre-select the day, the time, the station and the topic.

blue button: Call Select date/time/station/topics.



With ▼ ▲ select the menu line date, time, station or topics.

With ◆ ▶ select within the menu bar.

If, for example, you are looking for the next news, select today's date, "now" under Time, "all" under Channels and "News" under Topics.
Then you get a list of all news programmes in the station list below it.



Programming recording (for logged in recorder)

You prepare the station marked with the \checkmark buttons for recording by pressing the **red** button. In the following menu you confirm the timer data or change them as required. Then a red dot is set in front of this programme in the EPG programme list as an identification. If you select this programme, you can delete the programme from the timer again with the **red** button.

You can record a digitally transmitted programme and watch an analogue programme at the same time or vice versa $^{\ast}.$

Note: Never select the sound format "Dolby Digital" during recording, even if this is provided, since it cannot be recorded.

Call EPG menu:

Note: not with DVB-T stations in UK.



Call EPG menu



You will find the following settings in the EPG menu:

- "Select provider"
 "Station selection"
 "AVL timer list
- · "Data capture"

Selection of provider/station

In case of analogue TV programmes, you can change the provider (the station which transmits EPG data) to get EPG content for other programmes. You can do this under "Select provider".

Select "Select provider" and call this menu with **OK**. If the station you want to change to is not listed in the "Select provider" list, start the provider search with the **green** button. This takes a while.

Or, if you know the station, press the **yellow** button for "Change provider list". Select the provider in the programme list and enter it with **OK** and return to the provider selection with **BACK**.

Select the provider in the "Select provider" menu and press **OK**. Then a programme range search is performed. The programmes offered by the provider are displayed in a list.

If you want certain programmes to be omitted from the programme guide, you can select and deactivate these in the "Station selection". Call the programme selection with **OK**. Now all programmes are displayed (the DVB programmes too). Programmes marked by "E" are analogue terrestrial/cable programmes, programmes marked by "D" are digital programmes ready for the programme guide. Select the programmes

you want to omit from the programme guide one after another and deactivate each one with **OK**.

Data entry

After these settings or every time the switch is set off with the main switch, the data must first be collected (only for analogue TV). To do this, select the programme which you have defined as a provider and leave it switched on for about 1 hour or switch the set to standby. After about 2 minutes the mode indicator on the TV set lights orange. The data entry begins and lasts about 1 hour. The data are also automatically collected between 2 and 5 in the morning when the TV is switched to standby.

A prerequisite for data entry is that "Data capture" is "on (for DVB + analog)" in the EPG menu.

Note: If the main plug is pulled out or the **ON/OFF**-button is pushed, all EPG data are lost.

If you cannot receive any EPG providers, for example, you should switch off the data entry.

Switch on TV when marked

You can have the TV switched on automatically from standby at the beginning of the memorised programme. If you are not present at the time, a safety prompt makes sure the TV switches off again after 5 minutes.

Analogue Teletext

Teletext transmits information such as news, weather, sport, programme previews and subtitles.



Teletext on/off.



Many stations use the TOP operating system, some use FLOF (e.g. CNN). Your TV supports both these systems. The pages are divided into topic groups and topics. After switching on the teletext, up to 3500 pages are stored for fast access.

Page selection with the coloured buttons

The coloured bars (in TOP) or the coloured writing (in FLOF) in the penultimate row show you which coloured buttons to use, to scroll to topic groups and topics.

red: previous page (not in FLOF).

green: next page (not in FLOF).

0

yellow: to the next topic (only in TOP and FLOF).

blue: to the next topic (only in TOP and FLOF).

Other page selection options:



Mark a specified page number on the page (Page Catching).





call up.



Scroll in **multiple pages**. You can see which multiple pages can be called in the bottom menu line.



INFO

Call contents page 100.



Call the TOP table.

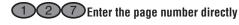
The TOP table is a general list of teletext. You can only call the table on stations, which use the TOP operating system.



Select a topic area with ▼ ▲.

Select "Topics" with ▶.

Select topic with ▼ ▲ and display page with **OK**.



Displaying teletext pages

Stop self-turning pages (HOLD).



Zoom page top part – bottom part – normal size (press button several times).



TV picture on/off (Split Text).





Turn subtitles on/off.



Reveal hidden text.

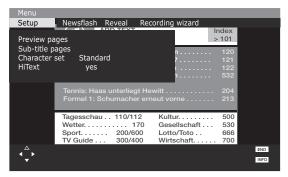
Programme timer recordings

A VCR or DVD recorder must be connected and logged in.
Call the programme pages of the current station in teletext mode. Scroll to the teletext page in which the programme to be recorded is listed if necessary. Select "Menu" – "Recording wizard" and press **OK**. Select the programme you want to record with \checkmark and confirm with the **OK** button. For "AVL Timer" select the VCR or DVD recorder and whether you want to record once or a serial. Confirm with **OK**.

Teletext menu

MENU

Display teletext menu.



Here you will find functions such as:

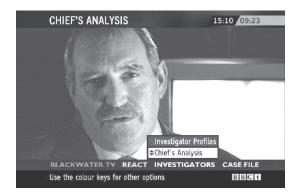
- "Newsflash", that is an on-screen display of the latest messages (e.g. page 111).
- "Reveal" concealed information, e.g. VPS pages in the station table pages.
- Programming a recording by teletext with the "Recording wizard".
- In the "Setup" you will find menus to define the "Preview pages", "Sub-title pages", the "Character set" as well as "HiText".

Digital Teletext (UK only)

In the UK the teletext for digital terrestrical channels (TV and Radio) is digitally distributed according to the MHEG-5 standard (defined by the Multimedia and Hypermedia Expert Group). It contains Text, Graphics, Functions and Links.

The operation of the menus is defined by the content provider and varies according to the programme.

Usually shortly after changing the station to a content provider who broadcasts Digital Teletext an option to enter this service is shown on the screen. Follow the guidance on the screen.



Depending on the service, you can be asked to use the \checkmark \land buttons and **OK** button, the **coloured** buttons, the **END/TEXT** buttons and sometimes the **numerical** buttons.

When you have finished watching teletext, select a different channel with the $P \land / P \lor$ buttons or follow the on screen instructions to return to the picture.

Notes:

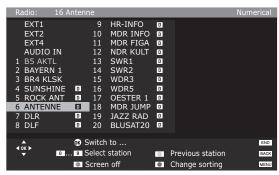
- Digital Teletext is not available when DVB-T subtitles are selected.
 Refer to page 28.
- If a timer recording is programmed at the TV-set, at the start time of the recording the digital teletext mode is switched off automatically.

Radio mode

You can only receive radio programmes via DVB.



Use the **RADIO** button on the remote control to switch the radio mode on or off.



You see a station table of the radio stations or with DVB-T in UK the station logo; in this case you can call up the station list with **OK** (Refer to the note on "LCN" on page 13).

Note: For DVB-T radio reception in UK operation with the coloured buttons whilst the channel logo is displayed is described as on page 26 under "Digital Teletext."

When the station list is shown you can switch off the screen with the **red** button. The mode indicator on the TV lights orange.

You can switch the screen display on again with the ${\bf 0K}$ button on the remote control.

Station switching with dark screen: with P_{\land} / P_{\lor} on the remote control or with the numeric buttons.

The Sound menu can be called with the button **SOUND** in radio mode. **Radio menu**



Call Radio menu.



In the Radio menu, as in TV mode, you can set the sound, search for radio stations, store and resort them (not with DVB-T mode in UK), delete stations from the list, change names and set switching off/alarm functions.

Programme guide – EPG

Note: not with DVB-T stations in UK.

For the DVB radio programmes you can also use the programme guide when the currently active station supplies data.

DVB subtitles

Note: In order to activate DVB-T subtitles you have to switch off Digital Teletext - refer to page 26.

If the station provider offers DVB subtitles, you can have these displayed permanently or suppress the display. You can also choose between "for translation" or "for impaired hearing".

- 1. Call the "TV menu" with the **MENU** button.
- 2. Select "Setup" and confirm with **OK**.
- 3. Select "Miscellaneous" and confirm with OK.
- 4. Select "DVB subtitles" and confirm with OK.

TV menu -> Setup -> DVB subtitles

Subtitels off
for impaired hearing
for translation

If you select "Subtitles off" the subtitles are disabled and only a display appears in the status display if subtitles are present.

You can show the subtitles again with the **END** and then with the **TEXT** button.

- Call the status bar by pressing the END and then the TEXT button if this is not already displayed.
- Press the TEXT button if the status bar is visible.Select the language and confirm with OK. The default changes for the current programme.
- 3. The selectable subtitle languages depend on the programme provider.
- 4.The automatic pre-selection is determined by the menu language and the selection in the "DVB subtitles" setup menu.
- 5. Hide the menu by pressing the **END** button.

CI module

Removing the CI module

- Switch off your TV set by pulling the main power plug out of the main power wall outlet.
- 2. Remove the cover on the upper back side of the TV set.
- Press in the eject button on the slide-in module, the module jumps out.
- 4. Pull the module out of the set.

New CI module plugged

After plugging a new CI module and switching on the TV set, the following dialogue box appears:

Autom. station search
Your TV set has detected a new CI module. This requires a station search
for all new receivable stations.

After pressing the **OK** button, the wizard for the automatic station search is started. Please check the suggested search parameters there. Continue with the section "New station search" on page 13.

Calling the CI module menu

Here you can call information about the plugged Common-Interface module and Smartcard. To do this, call the TV menu, select the "Setup", select "Miscellaneous" and press \mathbf{OK} . Then select the item "CI-Module I – xxx" (in place of "xxx" stands the name of the provider which is output by the smartcard).

The content of this menu depends on the respective CI module provider.

Note: This menu is only available with digital programmes.

Installing new software

To ensure that your DVB receiver is always up-to-date and state-of-theart, new software versions will be provided via the broadcaster from time to time which can be beamed directly to your device and can be installed automatically.

Automatic software detection

Your device can find out when new software versions are available. This happens at night, when your EPG is automatically updated. To enable this update to take place, your TV set simply needs to remain in standby mode.

If a new software version has been found, an on-screen message will inform you accordingly next time you switch the TV on:

You can decide whether you wish to download the new software or not.

Confirm with **OK** to start the download and install process for the new software, which will be transmitted by satellite.

You can find out more in the section "Downloading the software".

Searching for new software

If you want to carry out a manual search for an update software, proceed as follows:

- 1. Press the **MENU** button to call up the TV menu.
- 2. Confirm the line marked "Setup" with OK.
- 3. Confirm the line marked "Miscellaneous" with **OK**.
- 4. Select the entry marked "DVB software" and press **OK**.

TV menu -> Setup -> Update digital TV software

Current Version: V4.0.0

You can search for a new software version with OK

- If you start the search with **OK**, a check is performed to see if a new software version is available.
- 6. If a new version is available, an on-screen message will appear.

TV menu -> Setup -> Update digital TV software

Current Version: V4.0.0

New Version: V4.1.0

Downloading the software

- If you now press **0K** in the dialog box shown above, you can decide whether you want to download the software straight away, or when you switch the TV off, or not at all.
 - We recommend that you always update your digital software. This is the only way to ensure that your device is always up to date.
- If you have chosen to download the software, the software on your device will be configured and you will be informed of the download's progress by a grey bar and a counter.
 - Do not switch your device off during the download! The download process can last up to an hour. Once finished, a message will appear informing you that the download process is completed.
- 3. Once you have updated the software, you will be prompted to turn off your TV set with the ON/Standby switch and turn it back on again.

If you did not download the update, you will be asked again when you switch the TV on whether you wish to continue with the update process.

Operating additional equipment

Login and connect equipment

You have logged in and connected all connected equipment in the initial start-up. If you want to connect other equipment or disconnect equipment, call the connection wizard.



Call up the TV menu



Select "Connections"



Select "AV setup" and



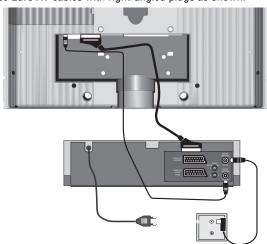
call up with **OK**.

State what equipment you want to connect. The connection wizard then shows you which sockets you should connect this equipment to. Then connect the equipment to these sockets.

Connecting VCR/DVD recorders

In addition to the connection via the Euro-AV sockets you also have to connect the antenna (only for terrestrial antenna or cable systems) through the VCR/DVD recorder to the TV set. The antenna signal is then available to the VCR/DVD recorder and the TV set.

Note: Use Euro AV cables with right-angled plugs as shown.



Search for and store the station of the video recorder (if no Euro AV cable is available)

Switch on the test station on the VCR or insert a recorded tape and start playback. In some video recorders the station must be switched on by activating the modulator.

Then call the AV selection on the TV set with \bigcirc or with button $\mathbf{0}$. Select the menu item "VIDEO" in the AV selection and call with $\mathbf{0K}$.

To prevent "normal" TV stations being found in the search, pull out the antenna plug from the antenna input of the VCR temporarily (the cable to the antenna system).

If you cannot see the test station or playback from the cassette, the VCR is transmitting on a different station. You then have to search for the station or set it manually.

- 1. Call the "TV menu" with the **MENU** button.
- 2. Select "Setup" with ◀ ▶.
- 3. Select "Channels" with ▼ and press **OK**.
- 4. Select "Manual tune" with ▼ and press **OK**.
- Enter station "E30" under the "Channel" item (UHF range, select in this menu above if necessary).
- 6. Start search with the blue button.
- 7. If the station has been found, enter the name "VIDEO", confirm with **OK** and save with the **red** button.
- 8. A list of the stored stations is displayed
- Select AV here and overwrite this programme place with the red button.
- 10. Hide the menu with the END button.

Reconnect the antenna plug back in.

If you now get interference because a TV station is transmitting on the same channel as the VCR station, you have to change the transmitting station on the VCR and repeat the steps 1 ... 10.

Video playback

There are several ways to see the picture and hear the sound of the VCR, DVD player or camcorder on your TV:

- 1. You can use the Euro AV sockets on the TV set and on the VCR. This is the best way to get a good picture and sound quality. Use the EXT 4 input on the left of the TV for camcoders and digital cameras. When playing from a video recorder with AV Link (or a comparable system from another manufacturer), the picture from the VCR is shown at the current programme place. When playing back from another video recorder, camcorder or digital camera, select the AV socket to which the video is connected with AV selection (button <) or with the station table (OK). Video recorders transmit a switching voltage during playback which the TV can evaluate (can be activated in the connection wizard or in the "TV menu" "Connections" "Miscellaneous" "Allow switching voltage" to "yes"). Then the picture of the video recorder is shown at the current programme place.</p>
- Use the antenna connection between the VCR and the TV. The sound is only transmitted in mono. Select the first menu item, e.g. VIDEO, in the AV selection.

Calling an AV programme in the AV selection list



Call AV selection



Select input source with **~** (or VIDEO if the video recorder has been connected via the antenna socket) and confirm with **0K**.

Now you will see the playback from the connected AV unit.

Notes:

- If channel 0 (Video) is called and a switching voltage is applied to EXT1 / EXT 2, the TV set switches automatically to this input.
- At EXT4 you may either connect a Y/C or CVBS video source (no simultaneous operation).

Calling AV stations with the station table

Call the station table with the **OK** button in TV mode.

In the numeric sorting you will always find the input source at the top of the list without station numbers.

Timer recording with video or DVD recorder

You can programme timer recordings on the TV set. Programming can be done with the EPG (not with DVB-T in UK), analogue teletext or manually.



Select whether you want to programme the recording by EPG, (analogue) teletext or manually.

Note: Copy protectet Pay-TV broadcasts are not available at the AV sockets.

When you have connected a recorder which has AV Link or a comparable system from a different manufacturer, the timer data of analogue terrestrial stations are transmitted from the TV to the recorder. The recording quality SQ or EQ is transmitted for DVD recorders additionally to station, date and time. The recording is then controlled by the recorder and the recorder tuner is used for reception of the station. The recording data are not saved in the timer list of the TV set. You will only find the timer data in the recorder.

If you want to record from digital stations, the TV tuner is used and the recorder is controlled by the TV set. Then the programme is locked during the timer recording. You can switch over to another station (analogue terrestrial) if you have a digital tuner (from which you are recording) and analogue terrestrial reception.

If you have connected a Sharp video recorder with AV Link and you are using the timer programming of the TV, the TV receiver is always used for terrestrial stations as well. The TV controls the recording.

You have to set the recorder to the AV input to which the TV set is connected.

The programme is locked during the timer recording. Switching to other stations is not possible.

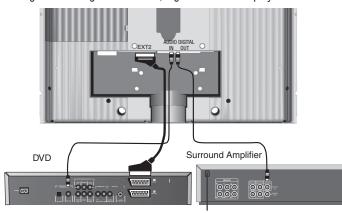
AV Link must be switched on on the recorder. Read the operating instructions of your recorder.

Use only Euro AV cables, which are completely shielded, otherwise AV Link will not work.

Assignment of digital audio in- and outputs

Audio input "AUDIO DIGITAL IN"

The TV set has a coaxial digital audio input "AUDIO DIGITAL IN" and a coaxial digital audio output "AUDIO DIGITAL OUT". If you are using an external digital surround amplifier for sound reproduction, you have to feed digital audio signals to the TV, e.g. from the DVD player.



Connect the output socket of the DVD player ("DIG OUT") to the TV's "AUDIO DIGITAL IN" socket with a cinch cable.

In the connection wizard you specify that audio transmission is to be digital. Specify that the digital sound is to be assigned for example to the Euro AV socket 2 to pass on the digital sound to the digital audio output of the TV set and via this to the external audio amplifier. Further information about this can be found on page 33.

Digital audio output

The digital audio signal is applied at the "AUDIO DIGITAL OUT" socket of the TV. For example, you can connect an external digital audio amplifier here.

An analogue audio signal from the TV set or another sound source which is received at one of the Euro-AV sockets of the TV set is converted into a digital signal (PCM) and output at the "AUDIO DIGITAL OUT" socket. Conversion from external analogue AV sources to PCM is not possible if the loudspeaker of the TV set is used as a centre channel. In this case connect your audio amplifier additionally to the TV ("AUDIO OUT L/R") with a cinch cable and switch the audio amplifier to analogue audio input.

The digital TV sound or the digital sound of a connected auxiliary device is only audible via an external digital audio amplifier.

Sound selection

If you are receiving a digital TV programme with several sound formats, you can call up the menu "Language/sound selection" by pressing the **END** button. Press the **green** button after this.

If you have connected an external Dolby Digital decoder and have entered this in the connection wizard, you should now select "Dolby Digital".

Note: The sound outputs of the TV set and speakers do not emit any sound signals in this operating mode (Exception: the TV speakers are used as active centre channel).

Only Stereo/PCM is reproduced with the setting "Sound via TV". This must be considered when selecting the sound.

Audio amplifiers or active speakers

In the connection wizard set "HiFi/AV amplifier" under "AV setup -> Audio equipment selection", "HiFi/AV amplifier". The connection wizard allows configuration of different audio amplifiers (stereo amplifiers, surround amplifiers, analogue or digital) with different sound formats (Dolby Digital, dts, MPEG and Stereo/PCM). Have a look at the audio amplifier manual.

Select "Audio transmission" "digital" for digital audio amplifiers. Connect the digital audio output of the TV "AUDIO DIGITAL OUT" to the digital audio input of the digital amplifier.

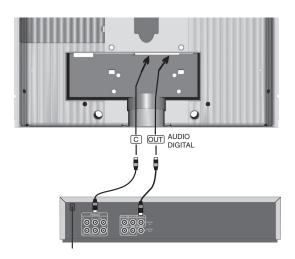
Assign the digital audio input to the socket through which the corresponding picture is transmitted (e.g. EXT2 if a DVD player is connected there). Then the digital sound is passed to the digital audio output of the TV set and fed to the external audio amplifier via this.

Specify which sound formats can be decoded with their digital amplifier (Dolby Digital, MPEG, dts).

Specify under "Type of Amplifier" whether the digital amplifier is a "Stereo amplifier" or "Surround amplifier".

If it is a surround amplifier, specify whether or not the TV speakers are to be used as centre loudspeakers. Connect the centre output of the amplifier to the centre input of the TV with a cinch cable if necessary.

Note: do not use the centre speaker connection on the amplifier but the pre-amplifier centre output!

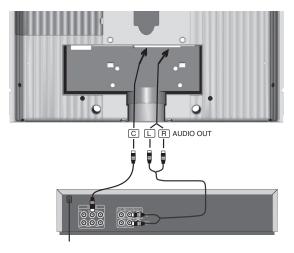


Select "Audio transmission" "analogue" for analogue audio amplifiers. The sound for the analogue amplifier is transmitted via the AUDIO OUT L/R connections of the TV to the audio amplifier. Connect the amplifier with two cinch cables

Specify under "Type of Amplifier" whether the digital amplifier is a "Stereo amplifier" or "Surround amplifier".

If it is a surround amplifier, also specify whether or not the TV speakers are to be used as centre loudspeakers. Connect the centre output of the amplifier to the centre input of the TV with a cinch cable if necessary.

Note: do not use the centre speaker connection on the amplifier but the pre-amplifier centre output!



If you want to listen to the sound over the TV speakers temporarily, call the Sound menu with the **SOUND** button, select "Sound via" and then "TV".

When connecting active loudspeakers select "Active speakers" in the connection wizard under "AV setup -> Audio equipment selection". The sound for the active loudspeakers is transmitted via the "AUDIO OUT L/R" connections to the active loudspeakers. Make connections to the active loudspeakers with the cinch cables.

The audio settings on the TV set when active loudspeakers are connected. When using an external audio amplifier, make the audio settings on the audio amplifier.

HDMI connection

The HDMI connection (High Definiton Multimedia Interface) allows digital picture and audio transmission via a connecting cable, e.g. from DVD players. The digital picture and sound data are transmitted without data compression and therefore lose none of their quality. No analogue/digital conversion is necessary in the connected equipment which also led to losses in quality.

DVI signals can be also be reproduced by the HDMI connection using a DVI/HDMI adapter cable. This is possible because HDMI is based on DVI and is downward compatible. That means that the digital video signals are transmitted via HDMI. In addition both use the same copy protection method HDCP.

Connect the DVD player or other audiovisual equipment with an HDMI cable (type A, 19-pin) to the EXT 5 socket of the TV set. Log in the EXT 5 connection in the connection wizard ("TV menu" – "Connections" – "AV setup").

Select the HDMI connection in the AV selection.



Call AV selection.



Select EXT 5 with ▼ ▲ and call up with **OK**.

Start playback on the connected device with HDMI connection. The best possible formats for picture and sound are detected and set automatically.

No sound is transmitted when a DVI/HDMI adapter cable is used for transmission. You can feed in the appropriate analogue sound via the audio input sockets "AUDIO IN L/R" on the TV set. The sound is played over the TV loudspeakers.

If you have connected a digital external audio amplifier, you can select the digital audio signal in the connection wizard ("TV menu - Connections - AV setup") and assign it to the EXT 5 socket. You do the other settings for the audio amplifier as described for the digital amplifier on page 33. The digital audio signal of the DVI audio source is fed in at the "AUDIO DIGITAL IN" socket on the TV. The digital audio signal from the TV "AUDIO DIGITAL OUT" is fed to the amplifier.

PC connection

You can connect a PC or a Set Top Box (STB) and therefore use the TV screen as an output device.

Connect the PC/STB with a VGA cable to the PC IN socket on the TV. When connecting to a PC you set one of the following screen resolutions on your PC first. 800x600 60Hz (SVGA) or 1024x768 60Hz (XGA).

When a Set Top Box is connected you set the following screen resolutions according to the possibilities of the Set Top Box:

698x576i (PAL), 698x480i (NTSC).

720x480i, 720x 576i (SDTV - standard modes in STB).

1280x720p, 1920x1080i (HDTV modes).

Select the PC IN connection in the AV selection.



Call "PC IN"-connection, or with





Select PC IN with \checkmark and call up with **OK**. Start the connected device.

Set geometry

Call the TV menu with the MENU button, select "Geometry" with

◆ and set:

If the picture is not positioned correctly you can move the picture horizontally and vertically here so that it fills the whole screen. You can also set the "Phase position" so that the picture appears in the best possible quality.

Set colour standard

Call the Picture menu with the button. Select "Colour standard" with ▲ ▼ and select.

The colour standard for a connected PC is "RGB".

In Set Top Boxes you usually set "Ycc" as a colour standard. Other formats such as "Ypp" or "RGB" can also be output. Please consult the manual of the connected device.

If the wrong standard is selected, you will recognise this from the wrong colours in the display.

Operating additional equipment

Sound from PC or Set Top Box

Feed the analogue audio signal from the PC or the STB to the sockets AUDIO IN L/R on the TV via a cinch cable. The sound is reproduced by the TV speakers.

If you have connected a digital external audio amplifier, you can select the digital audio signal in the connection wizard ("TV menu – Connections – AV setup") and assign it to the PC IN socket. You do the other settings for the audio amplifier as described for the digital amplifier on page 33. The digital audio signal of the Set Top Box is fed in at the "AUDIO DIGITAL IN" socket on the TV. The digital audio signal from the TV "AUDIO DIGITAL OUT" is fed to the amplifier.

Component Video connection

If you have a DVD player/recorder with Component OUT connections, you can connect it to the EXT 3 sockets of the TV instead of to the Euro AV sockets. The connecting cable with three cinch plugs each transmits picture information. The playback is better quality than via the Euro AV socket.

You need another cinch cable for the analogue audio transmission. Connect the analogue audio outputs of the DVD player to the "AUDIO IN L/R" sockets on the TV set. The sound is reproduced by the TV speakers. Log in the Component device in the connection wizard ("TV menu – Connections – AV setup"):

Assign the AUDIO DIG. IN input here, if a digital audio amplifier is also connected, to the "EXT 3" socket. You do the other settings for the audio amplifier as described for the digital amplifier on page 33.

Make a connection between "AUDIO DIG OUT" of the DVD player and "AUDIO DIGITAL IN" of the TV set.

Set the signal at the Component input in the connection wizard: Select the component input in the AV selection.



Call AV selection.



Select EXT 3 with ▼ ▲ and call up with **OK**.

Start playback on the connected device.

Set geometry

Call the TV menu with the **MENU** button, select "Geometry" with

◆ ▶ and set:

If the picture is not positioned correctly you can move the picture horizontally and vertically here so that it fills the whole screen. You can also set the phase position so that the picture appears in the best possible quality.

Specifications

Туре	LC-26GD7E	LC-32GD7E	LC-37GD7E
Dimension with table stand WxHxD (mm)	663x563x278	795x638x307	917x707x307
Dimension without table stand WxHxD (mm)	663x504x118	795x576x108	917x645x108
Image format	16:9	16:9	16:9
Image diagonal	65 cm	80 cm	94 cm
Pixel format	1366x768	1366x768	1366x768
Contrast ratio	800:1	800:1	800:1
Angle of viewing horizontal/vertical	170°	170°	170°
Weight with table stand (kg)	15,7	20,5	24,2
Power consumption (Watt) IEC 60107-1	70	85	100
Power standby (Watt)	< 3	< 3	< 3

General

0° - 40° Celsius Operating temperature Relative humidity 20 ... 80% (no condensation) Atmospheric pressure 800 ... 1114 HPa (0 ... 2000 m) Power supply 220 V - 240V/50-60 Hz Tuner VHF/UHF/ cable Hyperband 8 MHz 41 MHz to 860 MHz Station slot memory 430 / to DVB 1680 TV standards B/G, I, L, L', D/K, M, N Colour standard PAL, SECAM, NTSC, PAL 60Hz Mono/Stereo/Bilingual Sound standard Nicam B/G, I, L, Virtual Dolby 2 x 10 Watt/6 Ohm Rated audio power Analogue Teletext Top/FLOF Level 2.5 Page Memory 3500

Connections

ANT-TV		IEC socket 75 ohm (* 5 V/80 mA) Antenna/cable/DVB-T
ANT-SAT*		F socket 75 ohm 13/18 V/350 mA
EXT 1	Video IN	Y/C (S-VHS/Hi 8)
		CVBS (VHS/8 mm)
		RGB, YUV
	Video OUT	CVBS
		Y/C, (only with S-VHS AV Link)
	Audio IN	L/R
	Audio OUT	L/R
EXT 2	Video IN	Y/C (S-VHS/Hi 8)
		CVBS (VHS/8 mm)
	Video OUT	CVBS (VHS/8 mm)
		Y/C (S-VHS/Hi 8)
	Audio IN	` L/Ŕ
	Audio OUT	L/R
Cinch	Audio IN max. 2Vrms	Centre
2 x Cinch	Audio IN	L/R
2 x Cinch	Audio OUT	L/R
EXT 3 (Cinch)	COMPONENT IN:	Cb/Pb signal
	COMPONENT IN:	Cr/Pr signal
	COMPONENT IN:	Y signal
Cinch	Digital Audio IN (SPE	
Cinch	Digital Audio OUT (S	PDIF) Digital audio
EXT 4 (Mini-D		Y/C (S-VHS/Hi 8)
EXT 4 (yellow)	Video IN	CVBS (VHS/8 mm)
Cinch (white/re	ed) Audio IN	L/R
Jack 3.5mm		Headphones 32–2000 ohm
EXT 5	Digital Video/Audio IN	j
		audio
PC IN	D-sub 15 pin	PC/STB video signal
Mini-DIN		Service

^{*} Units with Digital satellite tuner

MHEG-5

The code number 3001 cancels out a secret code and with it the Parental lock. Please keep it in a safe place.

Digital Teletext (in UK only)

Troubleshooting

Problem	Possible cause	Possible solution
"Recording" is not displayed in the TV menu	No video or DVD recorder logged in	Log in the video or DVD recorder in the connection wizard and connect the device.
"Connections" for example cannot be called in the TV menu (grayed out)	A time recording is in progress	Wait until the timer recording has ended or delete the timer.
The control of the video recorder and the timer do not work or do not work properly.	a) The AV Link function is not activated or not possible in the video recorder b) Euro AV cable not connected	a) Activate AV Link in the video recorder (see operating instructions of the video recorder) b) Connect the Euro AV cable.
General problems with connecting external equipment via an EXT input	a) The device is not logged in in the connection wizard or connected differently to shown in the connection diagram. b) The AV standard is set incorrectly c) The AV signal is set incorrectly	a) Compare the connection diagram with the actual installation in the connection wizard and connect as shown if necessary. b) Set the standard correctly c) Set the AV signal correctly If "Automatic" is set for AV standard or AV signal, this can lead to faults with signals which do not conform to standard. Then the standard and the signal are set according to the specifications in the operating instructions of the external device.
A decoder connection does not function or is faulty	a) The signal is not decoded because the wrong decoder programmes are selected in the connection wizard. b) The sound is missing in decoder mode because the wrong decoder sound is assigned in the connection wizard.	 a) Follow the instructions in the connection wizard again and select the appropriate decoder programs. b) Follow the instructions in the connection wizard again and select the right audio source (decoder, TV or autom.), see instructions of the decoder.
All menus appear in the wrong language	Menu language has been set incorrectly	Set your menu language: Press the INFO button in TV mode (index). Select the first listing and call with OK . Then select the language and confirm with OK .

Troubleshooting

Problem	Possible cause	Possible solution
AV Link does not function	a) Euro AV cable is not fully wired (pin 10 not wired) b) Some video recorders can only take over the stations in first time operation of the TV c) All or some terrestrial and cable programs are stored at program places greater then 99	a) Replace the Euro AV cable b) Restore the video recorder to the as-delivered state (see recorder manual) c) Resort the terrestrial and cable programmes so that they come to rest between 1 and 99.
Various characters are displayed incorrectly in analogue teletext mode	The wrong character set is set in the teletext menu	Set the right character set: Teletext menu – Setup – Character set: standard or the appropriate character set.
No sound via external digital audio amplifier	a) The external digital audio amplifier does not support the selected sound format (Dolby Digital, dts, MPEG) b) TV set and external digital audio amplifier are not connected.	a) Set PCM stereo on the DVD player in the sound selection. Switch language/sound selection (green button) to Stereo in the DVB programme on the TV set in the status display (END). b) Connect Digital-Out from the TV set to a Digital-In of the external audio amplifier and select the appropriate input on this.
The station overview doesn't show any encoded stations, although the CI module and smart card are plugged in.	The CI module and / or smart card may not be plugged in correctly (see the section entitled "Inserting the Common-Interface module", see page 10). If no information appears for the CI module, smart card or CI software, the module or card has not been installed correctly.	Plug in the module and card correctly and repeat the station search process (see page 13)
The Picture-in-Picture (PIP) function is not available.		You are trying to watch two digital stations at once. However, you can only watch one analogue and one digital station at the same time.
I've changed the CI module and smart card, but I can't find the stations from the new provider in the station list.		When you exchange a CI module, you will need to carry out the station search process again before you will be able to watch the stations provided by a new provider (see page 13).

Troubleshooting

Problem	Possible cause	Possible solution
Pre-programming: Only a few digital stations are shown in the station list.		Start the automatic station search (see page 13).
Message "Station coded"	The selected station cannot be decoded.	 a) No suitable CI module is present, or it isn't plugged in correctly. b) The smart card isn't plugged in c) The station hasn't been released.
Message "No signal"	The antenna signal is not available.	 a) The antenna cable isn't connected, or isn't connected to the correct socket (SAT A/D). b) The antenna system is not set correctly. Check your settings. c) The satellite antenna isn't aligned correctly or reception is impaired (e.g. the antenna is iced up or covered with snow).
Message "Stations no longer available"	The stored station data is no longer available.	a) The station has ceased operating. b) The station has changed its transmission parameters.
Message "Transmission break"		The station is currently unavailable.
Message "Please wait"	Key data is being stored. This can take a few seconds.	Please do not turn your device off during this time.
No sound is emitted from the speakers of the television set.	"Dolby Digital" is selected in the menu "Language/sound selection".	Connect the DIGITAL (SPDIF) OUT output to an external AV receiver or change the settings in the language/sound selection menu (see page 18 Status Display).
Two identical informations for one programme are displayed in the EPG (DVB) list.		The EPG data are received for one station via DVB-T and DVB-S. You can deactivate one of the two stations in the "EPG menu – Station selection".
No Digital Teletext possible (UK).	DVB subtitles are active.	Turn off DVB subtitles.



